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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,734	03/25/2004	Cesar Hernan Guerrero	2881/101	5645
2101	7590	07/12/2006	EXAMINER	
BROMBERG & SUNSTEIN LLP 125 SUMMER STREET BOSTON, MA 02110-1618			MATZEK, MATTHEW D	
			ART UNIT	PAPER NUMBER

1771

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/808,734	Applicant(s) GUERRERO ET AL.	
	Examiner Matthew D. Matzek	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-11, 15-17, 20-31, 35, 36, 39, 46, 85-87, 90, 91 and 96-98 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-11, 15-17, 20-31, 35, 36, 39, 46, 85-87, 90, 91 and 96-98 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. The amendment dated 4/7/2006 has been fully considered and entered into the Record. Claims 47-64, 66-83 and 92-94 have been canceled, claims 8, 15-1620-22, 26, 28, 35, 39-41, 45, 85-87, 89 and 90 have been amended and new claims 96-98 have been added. The amended and new claims contain no new matter. Claims 8-11, 15-17, 20-31, 35, 36, 39, 46, 85-87, 90, 91 and 96-98 are currently pending. The previously applied prior art rejections have been withdrawn as they failed to teach a formulation to treat a fabric comprising a fluorochemical having a concentration ranging from about 4.5 to about 9% by weight of the formulation, a pore resistance composition having a concentration ranging from about 0.46 to about 0.65 parts by weight for each part of the fluorochemical and a cross-linking composition having a concentration ranging from about 0.60 to about 0.80 parts by weight for each part of the fluorochemical.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 8, 11, 15-17, 28, 31, 35, 36, 85 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 2005/0186873 A1) in view of Casella et al. (US 2005/0204477 A1).

a. Wang et al. teach a composition and method for treating textile substrates to obtain superior liquid repellent properties. The surface of the fabric may be texture-treated followed by chemical treatment using fluorocarbon repellant compositions. All fabrics inherently have pores. The treated textile substrates achieve superior water and oil repellency (Abstract). The treated textile effectively prevents liquid from passing

through the plurality of pores as the textile is water repellent. Fluorochemical compounds available for use in the applied invention include fluorochemical urethanes and acrylates [0081]. The invention also teaches that it is advantageous to add a crosslinking agent to the coating composition [0064]. In addition to the fluorochemicals, repellent silicones and waxes (pore resistance composition) may be employed in the invention to achieve repellent properties [0083]. To create a desired final product the textile may also be treated with wrinkle-resistor, odor neutralizer and fragrances [0067]. The textile may be treated to achieve a desired porosity [0068]. Wang et al. disclose using a fluorinated stain repellent having a concentration of 1%, 4% or 5% by weight with a cross-linking agent having various concentrations ranging from 0.25% up to 4.0%. See Examples 1, 2, 8, 17, 19-24 and 27. This allows for fluorochemical concentrations of from 1 to 5 weight percent of the chemical composition and a cross-linking composition having a concentration from about 0.05 to 0.80 parts by weight for each part of the fluorochemical $\left(\frac{0.25 - 4\% \text{ crosslinker}}{5\% \text{ fluorochemical}} \right)$. Wang et al. are silent as to fluoroalkyl acrylate copolymers and the quantifiable relationship between the pore resistance composition and the fluorochemical.

b. Casella et al. disclose a fabric treatment for stain release comprising a fluorochemical and a hydrophobic agent [0013]. The treatment most preferably contains fluorochemical at 5 to 30% by weight of said treatment [0026]. The fluorochemical may be a fluoroalkyl acrylate copolymer [0028]. The treatment may further comprise a hydrophobic agent (pore resistance composition) at a concentration of 0.5 to 60 % of said

treatment [0031]. Suggested hydrophobic agents include polyurethanes and waxes [0032-34]. Using the disclosed compositional limitations the pore resistance composition has a concentration of at least 0.10 parts by weight for each part of the fluoroalkyl acrylate copolymer.

c. Since Wang et al. and Casella et al. are from the same field of endeavor (i.e. liquid repellent textiles), the purpose disclosed by Casella et al. would have been recognized in the pertinent art of Wang et al.

d. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made fabric treatment of Wang et al. with the compositional limitations set forth by Casella et al. The skilled artisan would have been motivated by the desire to create an article with improved stain and soil resistance, oil repellency, water repellency, softness, wrinkle and damage resistance, and better hand to treated fabrics (Abstract, Casella et al.).

3. Claims 9, 10, 22-24, 26, 29, 30, 41, 43 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 2005/0186873 A1) in view of Casella et al. (US 2005/0204477 A1) as applied to claims 8 and 28 above, and further in view of Soane et al. (US 6,607,994 B2). Wang et al. and Casella et al. are silent as to the creation of a breathable coating for use on a denim fabric and the use of microencapsulated odor neutralizing compositions on the fabric.

a. Soane et al. teach a preparation useful for the permanent treatment of textiles such as denim (Abstract and col. 13, lines 36-41). The fabric may have a broad variety of properties including air permeability and water vapor breathability (col. 10, lines 34-40).

The treatment is directed to an agent or other payload that is encapsulated within a polymer shell or matrix or that has a surface coating (col. 1, lines 51-54). The encapsulated composition may comprise softeners and fragrances (col. 2, lines 31-35). The diameter of the capsules may range from 1 to about 1000nm or 1 micron (col. 6, lines 61-64). The architecture of the polymeric encapsulated particle is that it can be formulated and fine-tuned to exhibit controlled release of the entrapped payload (col. 2, lines 31-34).

b. Since Wang et al. and Soane et al. are from the same field of endeavor (i.e. polymeric treatments for textiles), the purpose disclosed by Soane et al. would have been recognized in the pertinent art of Wang et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the article of Wang et al. to be a porous denim garment with microencapsulated odor neutralizing composition. The skilled artisan would have been motivated by the fact that denim is a commonly texturized fabric and that by encapsulating the odor neutralizing composition of Wang et al. it can be fine-tuned to exhibit controlled release of the entrapped payload (col. 2, lines 31-34). Claim 23 is rejected because as the odor is neutralized by the applied composition its concentration is decreased thereby decreasing its vapor pressure.

d. Although Wang et al. and Soane et al. do not explicitly teach the claimed feature of the plurality of pores having a specified surface tension or the fabric's surface tension, it is reasonable to presume that said properties are inherent to Wang et al. and Soane et al. Support for said presumption is found in the use of like materials (i.e. denim coated with

a urethane composition comprising a fluorochemical and wax). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of a specified pore or fabric surface tension would obviously have been present one the Wang et al. and Soane et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote (CCPA 1977) as to the providing of this rejection made above under 35 USC 102.

e. Reliance upon inherency is not improper even though rejection is based on Section 103 instead of Section 102. *In re Skoner*, et al. (CCPA) 186 USPQ 80.

4. Claims 20 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 2005/0186873 A1) in view of Casella et al. (US 2005/0204477 A1) as applied to claims 8 and 28 above, and further in view of Seki et al. (US 3,029,164). The previously applied inventions are silent as to the use of an inorganic salt and 2-imidazolidinone in the cross-linking composition.

a. Seki et al. teach an application of 2-imidazolidinones for use in rendering the fabric crease-proof (col. 6, lines 54-58). Along with the 2-imidazolidinone, inorganic salts may be used to cross-link the resinous coating (col. 7, lines 15-21). Along with the curing catalysts, other additives such as softening agent and water repellents may be employed into the coating composition (col. 7, lines 39-45).

b. Since Wang et al. and Seki et al. are from the same field of endeavor, (i.e. polymeric treatments for textiles), the purpose disclosed by Seki et al. would have been recognized in the pertinent art of Wang et al.

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c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate an inorganic salt and 2-imidazolidinone into the cross-linking composition with the motivation of rendering the treated fabric crease-proof (col. 6, lines 54-58, Seki et al.).

5. Claims 21 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 2005/0186873 A1) in view of Casella et al. (US 2005/0204477 A1) as applied to claims 8 and 28 above, and further in view of Todd et al. (US 6,861,520). The previously applied inventions are silent as to the use of an amino-modified copolymer silicone as the softening agent or glyoxal as a crosslinking agent.

a. Todd et al. teach a process for chemically bonding an odor-encapsulating agent to textiles, such as articles of clothing, with a cross-linking agent (Abstract). The composition may also comprise a softening agent such as an amino-functional silicone emulsion (col. 12, lines 26-27). The Examiner takes the position that the applied amino-functional silicone emulsion is equivalent to the claimed amino-modified copolymer silicone. Conventional techniques for preparing cellulosic containing materials may employ cross-linking with a mixture of glyoxal and imidazolidone (col. 4, lines 21-27).

b. Since Wang et al. and Todd et al. are from the same field of endeavor (i.e. polymeric treatments for textiles), the purpose disclosed by Todd et al. would have been recognized in the pertinent art of Wang et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the treatment composition of Wang et al. with the

softening agent and cross-linking agent of Todd et al. with the motivation of creating a softer article with a coating treatment that has been crosslinked to the fabric.

6. Claims 27 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 2005/0186873 A1) in view of Casella et al. (US 2005/0204477 A1) and Soane et al. (US 6,607,994 B2) as applied to claims 26 and 45 above, and further in view of Todd et al. (US 6,861,520). The previously applied inventions are silent as to the use of an amino-modified copolymer silicone as the softening agent or glyoxal as a crosslinking agent.

a. Todd et al. teach a process for chemically bonding an odor-encapsulating agent to textiles, such as articles of clothing, with a cross-linking agent (Abstract). The composition may also comprise a softening agent such as an amino-functional silicone emulsion (col. 12, lines 26-27). The Examiner takes the position that the applied amino-functional silicone emulsion is equivalent to the claimed amino-modified copolymer silicone. Conventional techniques for preparing cellulosic containing materials may employ cross-linking with a mixture of glyoxal and imidazolidone (col. 4, lines 21-27).

b. Since Wang et al. and Todd et al. are from the same field of endeavor (i.e. polymeric treatments for textiles), the purpose disclosed by Todd et al. would have been recognized in the pertinent art of Wang et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the treatment composition of Wang et al. with the softening agent and cross-linking agent of Todd et al. with the motivation of creating a softer article with a coating treatment that has been crosslinked to the fabric.

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7. Claims 25, 42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 2005/0186873 A1) in view of Casella et al. (US 2005/0204477 A1) and Soane et al. (US 6,607,994 B2) as applied to claims 22 and 41 above, and further in view of Gagliardi et al. (US 6,245,693) as evidenced by Iwahashi (US 4,915,939). The previously applied inventions are silent as to the use of phosphate salts of 2,2'-oxybisethanol-2,2'-(methylimino)bisethanol as an odor neutralizing agent.

a. Gagliardi et al. teach a laminated article comprising an odor absorber (Abstract). Odor controlling agents available for the applied invention include inorganic salts such as phosphate salts. Iwahashi demonstrates that 2,2'-(methylamino)bisethanol may be use as a deodorant composition (col. 2, lines 10-30).

b. Since Wang et al. and Gagliardi et al. are from the same field of endeavor (i.e. articles comprising odor absorbing agents), the purpose disclosed by Gagliardi et al. would have been recognized in the pertinent art of Wang et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used phosphate salts of 2,2'-oxybisethanol-2,2'-(methylimino)bisethanol as an odor neutralizing agent motivated by the desire to create an article that absorbs odors emitted by the garment's wearer.

8. Claims 87, 89, 91 and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 2005/0186873 A1) in view of Casella et al. (US 2005/0204477 A1) and Soane et al. (US 6,607,994 B2) as applied to claim 9 above, and further in view of Seki et al. (US 3,029,164). The previously applied inventions are silent as to the use of an inorganic salt and 2-imidazolidinone in the cross-linking composition.

- a. Seki et al. teach an application of 2-imidazolidinones for use in rendering the fabric crease-proof (col. 6, lines 54-58). Along with the 2-imidazolidinone, inorganic salts may be used to cross-link the resinous coating (col. 7, lines 15-21). Along with the curing catalysts, other additives such as softening agent and water repellents may be employed into the coating composition (col. 7, lines 39-45).
 - b. Since Wang et al. and Seki et al. are from the same field of endeavor, (i.e. polymeric treatments for textiles), the purpose disclosed by Seki et al. would have been recognized in the pertinent art of Wang et al.
 - c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate an inorganic salt and 2-imidazolidinone into the cross-linking composition with the motivation of rendering the treated fabric crease-proof (col. 6, lines 54-58, Seki et al.).
 - d. Claim 96 is rejected as Soane et al. teach that the microencapsulated odor neutralizing composition has a concentration ranging from about 0.1 to about 95% percent of the coating solution. Based upon the fluoroalkyl acrylate copolymer concentration taught by Wang et al. (1-5 weight percent of the total coating) the combined article will have odor neutralizing composition of at least 0.10 parts by weight for each part of the fluoroalkyl acrylate copolymer.
9. Claims 97 and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 2005/0186873 A1) in view of Casella et al. (US 2005/0204477 A1), Soane et al. (US 6,607,994 B2) and Seki et al. (US 3,029,164) as applied to claim 87 above, and further in view of Todd et al. (US 6,861,520). The previously applied inventions are silent as to the use of an

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amino-modified copolymer silicone having a concentration ranging from about 1.25 to about 3.5 percent by weight of the denim fabric before applying the chemical composition.

- a. Todd et al. teach a process for chemically bonding an odor-encapsulating agent to textiles, such as articles of clothing, with a cross-linking agent (Abstract). The composition may also comprise a softening agent such as an amino-functional silicone emulsion (col. 12, lines 26-27). The Examiner takes the position that the applied amino-functional silicone emulsion is equivalent to the claimed amino-modified copolymer silicone. Conventional techniques for preparing cellulosic containing materials may employ cross-linking with a mixture of glyoxal and imidazolidone (col. 4, lines 21-27). Todd et al. teach the use of an amino-functional silicone emulsion SIL FIN WHP ® at two weight percent of Textile Finish Formulation I (Example 1).
- b. Since Wang et al. and Todd et al. are from the same field of endeavor (i.e. polymeric treatments for textiles), the purpose disclosed by Todd et al. would have been recognized in the pertinent art of Wang et al.
- c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the treatment composition of Wang et al. with the softening agent and cross-linking agent of Todd et al. with the motivation of creating a softer article with a coating treatment that has been crosslinked to the fabric.
- d. The amount of the amino-modified copolymer silicone relative to the weight of the denim fabric is a result-effective variable effecting finished textile's level of softness (col. 12, lines 26-27). Consequently, absent a clear and convincing showing of unexpected results demonstrating the criticality of the concentration, it would have been

obvious to one of ordinary skill in the art to optimize this result-effective variable by routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

10. Claim 90 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 2005/0186873 A1) in view of Casella et al. (US 2005/0204477 A1), Soane et al. (US 6,607,994 B2), and Seki et al. (US 3,029,164) as applied to claim 89 above, and further in view of Gagliardi et al. (US 6,245,693) as evidenced by Iwahashi (US 4,915,939). The previously applied inventions are silent as to the use of phosphate salts of 2,2'-oxybisethanol-2,2'-(methylimino)bisethanol as an odor neutralizing agent.

a. Gagliardi et al. teach a laminated article comprising an odor absorber (Abstract). Odor controlling agents available for the applied invention include inorganic salts such as phosphate salts. Iwahashi demonstrates that 2,2'-(methylamino)bisethanol may be use as a deodorant composition (col. 2, lines 10-30).

b. Since Wang et al. and Gagliardi et al. are from the same field of endeavor (i.e. articles comprising odor absorbing agents), the purpose disclosed by Gagliardi et al. would have been recognized in the pertinent art of Wang et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used phosphate salts of 2,2'-oxybisethanol-2,2'-(methylimino)bisethanol as an odor neutralizing agent motivated by the desire to create an article that absorbs odors emitted by the garment's wearer.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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mdm

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